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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BOLTON, TARA L

ART UNIT PAPER NUMBER

3681

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/617,997	Applicant(s) BRILL ET AL.	
	Examiner Tara L. Bolton	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3,9,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-13 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a final action in response to amendments of application 10/617997 filed on 11/10/2005.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 10, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Haluda (U.S. Patent No. 3,887,037).

Claim 1, Haluda discloses an axle housing assembly (shown in Fig. 2) comprising a housing (24), a shaft (12) supported for rotation within the housing, and a web member (83, 95) within the housing defining a lubricant containment chamber (86) within a portion of the housing, wherein the web member defines an opening through which the shaft extends, wherein the web member and the opening surround the shaft.

Claim 2, Haluda discloses a drive assembly within the lubricant containment chamber (shown in Fig. 2).

Claim 4, Haluda discloses the web member including a shaft seal (118) within the opening and about the shaft for preventing lubricant leakage past the web member.

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Claim 10, Haluda discloses that the lubricant containment chamber is disposed around a drive assembly (shown in Fig. 2).

Claim 17, Haluda discloses that the web member extends completely between inner walls of the housing (shown in Fig. 2).

Claim 19, Haluda discloses that the lubricant within the lubricant chamber is at a level vertically about the shaft (column 5, lines 63-64).

3. Claims 1, 2, 5, 6, 8, 10, 17 and 19 rejected under 35 U.S.C. 102(b) as being anticipated by Riise (U.S. Patent No. 1,824,793).

Claim 1, Riise discloses an axle housing assembly (shown in Fig. 1) comprising a housing (1), a shaft (15) supported for rotation within the housing, and a web member (35) within the housing defining a lubricant containment chamber (shown in Fig. 1) within a portion of the housing, wherein the web member defines an opening through which the shaft extends, wherein the web member and the opening surround the shaft (shown in Fig. 2).

Claim 2, Riise discloses a drive assembly within the lubricant containment chamber (shown in Fig. 1).

Claims 5 and 6, Riise discloses that there are at least two lubricant containment chambers disposed at distal ends within the housing; Fig. 1 shows one chamber on one side of the rear axle and a mirror image would show the other chamber on the other side.

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Claim 8, Riise discloses that the shaft rotates about a first axis and a wheel hub driven by the shaft rotates about a second axis (about shaft 20) spaced apart from the first axis (shown in Fig. 1).

Claim 10, Riise discloses that the lubricant containment chamber is disposed around a drive assembly (shown in Fig. 1).

Claim 17, Riise discloses that the web members extend completely between the inner walls of the housing.

Claim 19, Riise discloses that the lubricant within the lubricant chamber is at a level vertically above the shaft because in order for lubricant to be supplied to bearings (18) (page 2, lines 100-104) the level would need to be vertically above the shaft.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 1, 2, 4-8, 10-13, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riise in view of Haluda.

Claim 1, Riise discloses an axle housing assembly (shown in Fig. 1) comprising a housing (1), a shaft (15) supported for rotation within the housing, and a web member (35) within the housing defining a lubricant containment chamber (shown in Fig. 1) within a portion of the housing, wherein the web member defines an opening through which the shaft extends. Through an alternate interpretation of Fig. 2, Riise may not clearly teach the web member surrounding the shaft. However, Haluda teaches the web member (83, 95) and the opening surrounding the shaft (12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the teachings of Riise to surround the shaft with the web member as taught by Haluda, because it would add support for the shaft.

Claim 2, Riise discloses a drive assembly within the lubricant containment chamber (shown in Fig. 1).

Claim 4, Riise fails to explicitly teach a shaft seal disposed about the shaft.

However, Haluda teaches the web member including a shaft seal (118) within the opening and about the shaft for preventing lubricant leakage past the web member.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the teachings of Riise to include a shaft seal as taught by Haluda because it would prevent the escape of lubricant from the chambers (column 5, lines 49-51).

Claims 5 and 6, Riise discloses that there are at least two lubricant containment chambers disposed at distal ends within the housing; Fig. 1 shows one chamber on one side of the rear axle and a mirror image would show the other chamber on the other side.

Claim 7, Riise discloses that at least two web members define at least two lubricant containment chambers (same reasoning as applied to claims 5 and 6), and a middle section between at least two web members at each end of the housing having less lubricant than the at least two lubricant containment chambers. However, Riise fails to explicitly teach this middle section being sealed. However, Haluda teaches a shaft seal (118) which would seal the middle section.

Claim 8, Riise discloses that the shaft rotates about a first axis and a wheel hub driven by the shaft rotates about a second axis (about shaft 20) spaced apart from the first axis (shown in Fig. 1).

Claim 10, Riise discloses that the lubricant containment chamber is disposed around a drive assembly (shown in Fig. 1).

Claim 11, Riise discloses an axle housing assembly comprising a housing (1) defining an internal chamber, a shaft (15) supported for rotation within the

housing, at least two web members (35) disposed within the chamber restricting flow of lubricant to two lubricant chambers disposed at distal ends of the housing (same reasoning as applied to claims 5 and 6), wherein the housing includes a middle section between at least two web members at each of the distal ends of the housing such that the middle section has less lubricant than the lubricant containment chambers. However, Riise fails to explicitly teach a sealed middle section and a shaft seal. However, Haluda teaches a shaft seal (118) cooperating with the shaft and each of the web members for preventing lubricant from passing out of the two lubricant containment chambers, which would seal the middle section.

Claim 12, Riise discloses a drive mechanism disposed within one of the lubricant containment chambers (shown in Fig. 1).

Claim 13, Riise discloses that the shaft extends through an opening within each of the web members and the openings and the web members surround the shaft (shown in Fig. 2).

Claim 16 and 17, Riise discloses that the web members extend completely between the inner walls of the housing.

Claim 18 and 19, Riise discloses that the lubricant within the lubricant chamber is at a level vertically above the shaft because in order for lubricant to be supplied to bearings (18) (page 2, lines 100-104) the level would need to be vertically above the shaft.

Response to Arguments

7. Applicant's arguments filed on 11/10/2005 have been fully considered but they are not persuasive. With respect to Applicant's arguments to claim 1, Riise discloses a web member (35) that does surround the shaft (15) extending through the web member as shown in Fig. 2. With respect to Applicant's arguments to claims 11 and 14, amended claim 11 reads "said middle section has less lubricant," Riise discloses a middle section having less lubricant. Combining the teachings of Riise to include a shaft seal as taught by Haluda would not destroy the intended operation because lubrication in the middle section is not required. A shaft seal would serve the purpose of preventing the lubricant from flowing out of the chambers.

8. Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Bolton whose telephone number is 571-272-1649. The examiner can normally be reached on Monday-Thursday 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlb
TJB
1/17/06

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